

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1, 3-10 and 12 are currently pending in the application. No claim amendments are presented, thus no new matter is added.

In the outstanding Official Action, Claims 1, 3-10 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lindsay et al. (U.S. Patent Publication No. 2002/0009070 A1, hereinafter "Lindsay") in view of Raith (U.S. Patent No. 6,711,408 B1, hereinafter "Raith") and in further view of Ida et al. (U.S. Patent Publication No. 2002/0082036 A1, hereinafter "Ida").

The outstanding Official Action rejected Claims 1, 3-10 and 12 under 35 U.S.C. § 103 as unpatentable over Lindsay in view of Raith, and in further view of Ida. The Official Action cites Lindsay and Ida as disclosing the Applicants' invention with exception of the steps of receiving a handover history and selecting at least a handover destination candidate. In an attempt to remedy these deficiencies, the Official Action cites Raith and states that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine these references to arrive at the Applicants' claims. Applicants respectfully traverse this rejection as Raith fails to teach or suggest the features of Claims 1 and 12 for which it is asserted.

Independent Claim 1 relates to a handover control method in which a mobile station is able to request handoff between base stations when a connection quality between the base station and a mobile station falls below a threshold. When the quality falls below the threshold, the communication control apparatus receives a handover request and a handover history from the mobile station; the handover history identifying origination and destination

base stations of previous successful handovers of the mobile station. The communication control apparatus then selects at least one handover candidate based, at least, on the received handover history.

Specifically, independent Claim 1 recites *inter alia*, handover control method, comprising:

... said communication control apparatus:  
***receiving a handover history from the mobile station,***  
said handover history ***identifying origination and destination***  
***base stations of previous successful handovers of the mobile***  
***station;***  
selecting a handover destination candidate ... based at  
least on the received handover history...

Independent Claim 12, while directed to an alternative embodiment, recites substantially similar features.

As described, in a non-limiting, exemplary embodiment, at pp. 19-21 and Fig. 2 and 5 of the specification, the moved history notification part in the mobile station reads moved history (e.g., handover history or area residing history) of the mobile station from its own memory, and sends this moved history to the base station.

Turning to the applicable secondary reference, Raith describes a method in which a location of a cellular phone is monitored, and the future path of the phone may be projected based on geographic path information stored within the network.<sup>1</sup> The stored path information is then used in conjunction with the location information received from the mobile device to determine a suitable handoff destination.

Raith, however, fails to teach or suggest ***receiving a handover history from the mobile station***, which identifies ***origination and destination base stations of previous successful handovers of the mobile station***, as recited in independent Claim 1.

---

<sup>1</sup> Raith, Figs. 3-4.

In rebutting this assertion, the outstanding Official Action cites col. 6 lines 31-38 of Raith, and states that the reference “describes that *frequently traveled routes are stored in a route server* connected to the mobile communication network 10, such as in the MSCs 14, the HLR 15, or at any other location,” and that these stored routes are used to assist in making handoff decisions. Further, the outstanding Official Action states:

The passage above teaches that MSC or HLR stores frequently traveled routes of the mobile station, which is the history of the mobile station. This information is obviously received from the mobile station. Raith further teaches that *one or more hand-off positions long (sic) each route are preferably stored in the route server*, in which it means that Raith describes a handover history from the mobile station because based on traveled routes, and hand-off position where it was taken place, the MSC or HLR stores this information...

Thus, as noted above, the outstanding Official Action asserts that “the MSC or HLR stores frequently traveled routes of the mobile station, which is the history of the mobile station.” While the information stored in the MSC or HLR may be handoff history information of the mobile station, such information is not “obviously received from the mobile station,” as asserted in the outstanding Official Action.

As described at Fig. 4, and col. 6, lines 55-60 of Raith, when a mobile terminal (20) enters the service area of the mobile communication network (10), the position of the mobile terminal (20) is monitored and its path is determined. Thus, the “frequently traveled routes” of Raith, are determined by detecting the location and movement of the mobile station, which may be reported at an instant in time by the mobile station. Thus, the communication protocols existing between the mobile station and the network allow the network to determine where the mobile station is located, and thereby build a history of “frequently traveled routes” of the mobile station. This “history of frequently traveled routes,” however, is not

stored in the mobile station and, therefore, can not possibly be transmitted from the mobile station to the MSC or HLR.

Independent Claim 1 recites *receiving a handover history from the mobile station*, which identifies *origination and destination base stations of previous successful handovers of the mobile station*. Raith, in contrast, simply describes that the mobile communication network (20) is capable of tracking the movement of the mobile station, and can determine and store previously traveled routes based on the movement of the mobile station. Thus, Raith's MSC or HLR may receive information from a mobile station regarding its position at a current point in time, but at no point does the mobile station send *a handover history* identifying *origination and destination base stations of previous successful handovers of the mobile station*, as recited in independent Claim 1.

Further, Raith fails to teach or suggest, whatsoever, that the mobile station in his system is capable of maintaining a handover history identifying origination and destination base stations of previous successful handovers of the mobile station, much less that such information is transmitted from the mobile station to the mobile communication network. Instead, as discussed above, the information regarding route histories for the mobile station is collected based on a detected location of the mobile station and is stored in the mobile communication network, thereby eliminating the need to store handover history information in, and transmit handover history from the mobile station.

Therefore, Raith fails to teach or suggest “*receiving a handover history from the mobile station, said handover history identifying origination and destination base stations of previous successful handovers of the mobile station*”, as recited in independent Claim 1.

Accordingly, Applicants respectfully request that the rejection of independent Claim 1 (and the claims that depend therefrom) under 35 U.S.C. § 103 be withdrawn. For

substantially the same reasons given above with respect to independent Claim 1, Applicants also submit that independent Claim 12 patentably defines over the applied references.

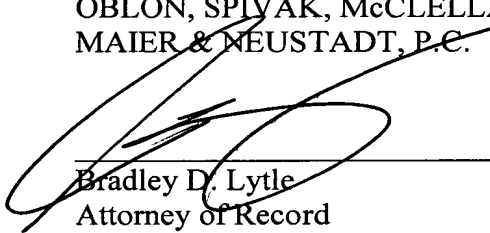
Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1, 3-10 and 12 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)



---

Bradley D. Lytle  
Attorney of Record  
Registration No. 40,073

Andrew T. Harry  
Registration No. 56,959